

hemiplegia was attributable to the latter cause. The second case seems to render this opinion highly probable. In this instance, sudden right hemiplegia came on, followed by death in seven hours. On section there was blockage of the "carotis cerebialis sinistra," caused by lodgement of a clot which had been detached from an old chalky concretion hanging down from a contracted mitral orifice into the ventricle; there was, however, no softening of the cerebral substance, so that here *the mere arrest of circulation, in a particular part of the brain, caused hemiplegia, without visible alteration of the brain-substance.* In the third case (phthisis pulmonalis), without any cardiac murmurs, sudden right hemiplegia came on; on section, the "carotis cerebialis sinistra" was blocked up with a white, tough, elastic plug; there was yellow softening of the under and middle part of the left hemisphere. On the mitral valve were two fibrinous coagula, white, elastic, and seated on and firmly adhering to excrescences on the valves. In all other vessels between the mitral valve and cerebral artery were no other coagula. In all these three cases, the coats of the cerebral arteries were normal, and there was no local cause for their blocking-up.—*Virchow's Archiv.* vol. v. p. 189.

[These observations were evidently made without cognizance of those previously recorded by Dr. Kirkes;¹ and they are therefore extremely valuable as confirmatory evidence, as well as in the novel fact they prove, that mere deprivation of blood will cause hemiplegia.]—*Brit. and For. Med.-Chir. Rev.* July, 1853.

27. *Progressive Atrophic Muscular Paralysis.* By M. CRUVEILHIER.—M. Aran has described, in the *Archives Générales*, a form of muscular paralysis, under the term "progressive muscular atrophy;" and M. Thouvenet has described the same lesion under the title "atrophic muscular paralysis." Since 1848, this form has been familiar to M. Cruveilhier; and in the present memoir various cases of it are related. The first case was that of a lady, aged 40, with general paralysis, more marked in the upper than in the lower extremities, and unaccompanied by lesion of sensation, or alteration of intellect. Death ensued by extension of the paralysis to the diaphragm and laryngeal muscles. A profound lesion of the spinal cord was diagnosed, but after death the nervous centres were found to be perfectly healthy. The true nature of the case was not recognized, and M. Cruveilhier, not content with the term *névrose*, given to the case by other physicians who witnessed it, accused pathological anatomy of want of power to recognize some lesions of the brain and cord. The second case was that of a man, aged 18, with general paralysis, sensation and the intellectual faculties being unaffected. An affection of the anterior column of the cord was diagnosed, but after death the cord was found perfectly healthy. The muscles were carefully dissected, and were found to be atrophied in two ways, viz., by simple atrophy, and atrophy with fatty degeneration. The state of the nerves was not examined. In the third case, there was gradual muscular atrophy and paralysis, with retention of intellect and sensation. In addition to the paralysis, there were tremors, or little convulsive shocks, of the muscles of the extremities, as long as the atrophy was not complete. There was also, occasionally, a kind of general trembling or shivering. Death finally ensued from general bronchitis and "œdematous pneumonia." Many of the muscles were atrophied and in a state of fatty degeneration, exactly resembling, as M. Cruveilhier remarks, the state of the muscles described by Dr. Meryon, in the last volume of the *Medico-Chirurgical Transactions*. M. Mandl, in drawing the microscopic appearances, produced plates precisely similar to those of Dr. Meryon. The brain was perfectly healthy; so also was the spinal cord and the posterior roots of the nerves. *But the anterior roots, especially in the cervical region, were found to be greatly diminished in size; in fact, atrophied.* This condition was traced till the union of the roots; in the conjoint nerve on the distal side of the ganglion no change could be detected; the trunks forming the brachial plexus, and this plexus itself, were healthy. The nerves running in the thickness of the muscles were, however, atrophied; and this was traced most exquisitely in the tongue, of which there had been perfect paralysis. The lingual (gustatory) nerve was

¹ See No. 22, p. 384.

well fed and of proper size, but the hypoglossal (motor) nerve was extremely atrophied; many of its branches seemed to consist of nothing but neurilemma.

M. Duchenne had electrolyzed this patient, and found that, as the paralysis advanced, the muscles became inexcitable.

M. Cruveilhier remarks on these three cases, that the first case showed only paralysis without disease of the nervous centres; the second, more completely examined, exhibited great muscular atrophy and degeneration; while the third, still more carefully dissected, showed, in addition, atrophy of the anterior roots and of the muscular branches of the nerves. He remarks, also, that the clinical history and the morbid anatomy exactly accord. There is conservation of intelligence, and want of disease in the brain; conservation of sensation, and the cord and posterior roots are unaffected; paralysis of motion, and the motor nerves and muscles are atrophied.

But what is the connection between the atrophy of the muscles and of the nerves? Which is primary and essential?

The coincidence of nervous and muscular atrophy cannot properly be regarded as an exceptional case; nor, in all probability, is it a simple coincidence. Cruveilhier, after referring to the rapidity with which the atrophy occurs, to the great influence of the nerves, and to a case (of Dupuytren's) in which atrophy of one-half of the tongue succeeded compression of the hypoglossal nerve by a cyst, regards, as demonstrated, that the atrophy of the nerves is the primitive lesion, and the atrophy of the muscles is consecutive, and a consequence merely of diminution of function.

But what is the cause of the nervous atrophy?

Here observation at present fails, and future clinical experience must solve the problem. M. Cruveilhier believes that he has accomplished one step of progress in showing the implication of the nerves. How the nerves become implicated must now be learned.—*British and Foreign Medico-Chirurgical Review*, July, 1853, from *Archives Générales*, May.

28. *Writers' Cramp*.—M. HUBERT VALLEROUX related to the Société Médico-Pratique of Paris the case of a man, aged 40, an accountant, of good constitution, who wounded the middle finger of the right hand with a bit of a percussion cap, in discharging a gun, four years ago. Although the fragment was immediately extracted, a certain degree of sensibility remained. Subsequently an abscess formed, which, when opened, gave exit to another bit of cap. Some time afterwards, the patient began to experience cramp in the hand, which could not steadily hold the pen, but permitted it to slip about, so as to render him incapable of keeping his books. Then the affection spread, though in a slighter degree, to the left hand, and the man was obliged to give up his employment entirely. Frictions, liniments of every kind, effected no melioration in the patient's condition, and M. Hubert Valleroux inquired whether any of the members of the Society could assist him. The extension of the affection from the right to the left hand appeared, according to M. Dreyfus, to indicate that this curious affection was of rheumatismal origin. M. Perrin remarked that the affection had been described of late years by several authors, under the name of writers' cramp, and that mechanical support seems to give the patient the most relief. M. Delthil stated that the disease was not confined to writers. There were two cases upon record; one of its occurrence in a shirt-maker, who became unable to use the scissors; the other, in a church-clock painter, who lost the power of steadily holding the long brush necessary in his art. M. Amenille recalled to the Society's remembrance the fact that there had already been a discussion upon this fact, with reference to a certain pianist, whose fingers became so convulsively cramped in executing a piece, that he was forced to give up his profession. Attempts to afford him relief had been made by fitting on the fingers large heavy rings, and on the wrist a heavy bracelet. No advantage ensued.—*Société Médico-Pratique of Paris*, May, 1853.

This disease is occasionally, though rarely seen in England; but M. Hubert Valleroux is in error in supposing that the extension of the cramps from one hand to the other is rare. It may be regarded, on the contrary, as the rule,